

## Mercury and Mercury Compounds

### *Chemical Information*

Mercury (CAS 7439-97-6) is a heavy, silver-white metal that exists as a liquid at ambient temperatures.

**CAS Number** - 7439-97-6

**General Uses** - It is a precious metal used in chlor-alkali production, wiring devices, switching mechanisms, amalgam dental fillings, and measurement and control instruments. Industries also manufacture and process mercury reagents, catalysts, and medicinal chemicals. Metal ores, coal, crude oil, and fuel oils contain mercury as a trace constituent. Mercury is produced as a byproduct of gold ore mining operations. Secondary production of mercury involves the recovery of mercury from dismantled equipment and recovery from scrap and industrial wastes using a thermal or chemical extractive process. Major sources of recycled or recovered mercury include scrap from instrument and electrical manufactures (lamps and switches), wastes and sludge from laboratories and electrolytic refining plants, mercury batteries, and dental amalgams. Mercury is also found as a trace contaminant in fossil fuels and waste materials. The combination of the elevated temperature of the process and the volatility of Mercury and Mercury Compounds results in their being emitted in the combustion gas exhaust stream. Two general categories of mercury emissions sources exist involving fuel combustion for energy, steam and heat generation, as well as waste disposal processes.

**Potential Hazards** - The nervous system is sensitive to all forms of mercury. Methyl mercury and metallic mercury vapors are more harmful than other forms. Exposure to high levels of metallic, inorganic, or organic mercury can permanently damage the brain, kidneys, and developing fetus.

### *Summary Analysis— Mercury and Mercury Compounds.*

- In 2003, the 40,450 pounds of mercury and mercury compounds comprised about 0.1 percent of the total PC quantity.
- The number of facilities that reported mercury and mercury compounds increased each year since 2000, with 540 facilities reporting this chemical in 2003. Prior to 2000, only 27 facilities reported a PC quantity of mercury and mercury compounds. This significant increase was likely due to the lowered TRI reporting threshold (10 pounds) for mercury and mercury compounds.
- Almost 100 percent of mercury and mercury compounds was land disposed.
- The more than 490,000 pounds of mercury and mercury compounds recycled in 2003 represented about an 8 percent increase in recycling compared to the quantity recycled in 2002.
- Of the 540 facilities that reported mercury and mercury compounds in 2003, 10 facilities accounted for about 49 percent of the total quantity of this chemical. Sixty facilities accounted for almost 85 percent of the total quantity.
- In 2003, about 80 percent of mercury and mercury compounds were reported by facilities in 4 Regions (Regions 3, 4, 5, and 6).
- Facilities in every state and territory (except Puerto Rico and Vermont) reported a PC quantity of mercury and mercury compounds in 2003. Facilities in 12 states reported over 80 percent of the total quantity in 2003. Facilities in Texas reported the largest PC

quantity of mercury and mercury compounds in 2003, accounting for almost 15 percent of the total quantity.

- Facilities in over 90 SIC codes reported a PC quantity of mercury and mercury compounds in 2003. Over 90 percent was reported by facilities in 18 of the industry sectors (SIC codes); facilities in 3 of these industry sectors accounted for almost 60 percent of the total quantity: SIC 2819 (Industrial inorganic chemicals, nec), SIC 3312 (Blast furnaces and steel mills), and SIC 2812 (Alkalies and chlorine).

**National Trends – Mercury and Mercury Compounds.** The 40,540 pounds of mercury and mercury compounds accounted for about 0.1 percent of the total PC quantity in 2003. Exhibit 4.141 shows that the number of facilities that reported mercury and mercury compounds has risen each year since 2000, with 540 facilities reporting in 2003. Prior to 2000, only 27 facilities reported a PC quantity of mercury and mercury compounds. The increase in reporting facilities was likely due to the lower TRI reporting threshold (10 pounds) for mercury and mercury compounds that became effective for the 2000 TRI Reporting Year. The large increase in the number of reporting facilities contributed to an increase of almost 70 percent of the reported PC quantity of mercury and mercury compounds in 2000, compared to the quantity reported in 1999. Almost 100 percent of mercury and mercury compounds was land disposed. This is indicative of the fact that metals, including mercury and mercury compounds, are not amenable to destruction via treatment and have no energy value. Although treatment and energy recovery quantities were reported for mercury and mercury compounds since 1999, these quantities are steadily decreasing – likely due to improved data quality assurance by the TRI Program and increased awareness by reporting facilities that land disposal is the most suitable method to be reported for this chemical. Although the quantity of mercury and mercury compounds reported as recycled has decreased by almost 42 percent compared to the quantity recycled in 1999, the quantity recycled has remained relatively constant since 2000.

Exhibit 4. 141. National-Level Information for Mercury and Mercury Compounds (1999-2003)

	1999	2000	2001	2002	2003	Percent Change (1999-2003)	Management Method -- Percent of Quantity of this Chemical in 2003
Number of Facilities	27	477	502	513	540	1900.0%	
Disposal Quantity (lbs.)	47,066	86,129	94,168	95,226	40,475	-14.0%	99.8%
Energy Recovery Quantity (lbs.)	0	93	2	0	0	NA	0.0%
Treatment Quantity (lbs.)	5,813	3,480	36,605	1,897	65	-98.9%	0.2%
Priority Chemical Quantity (lbs.)	52,879	89,702	130,775	97,124	40,540	-23.3%	
Recycling Quantity (lbs.)	846,239	450,310	442,954	455,987	491,839	-41.9%	

Exhibit 4.142 shows the number of facilities that reported mercury and mercury compounds, within ranges of quantities. Of the 540 facilities that reported mercury and mercury compounds in 2003, 10 facilities accounted for about 49 percent of the total quantity of this chemical. Sixty facilities accounted for almost 85 percent of the total quantity.

Exhibit 4. 142. Distribution of Facilities that Reported Quantities for Mercury and Mercury Compounds (2003)

<b>Mercury and Mercury Compounds (40,540 pounds)</b>		
<b>Quantity Reported</b>	<b>Number of Facilities Reporting this quantity (2003)</b>	<b>Percent of Total Quantity for this Priority Chemical</b>
up to 10 pounds	320	2.1%
between 11 - 100 pounds	160	13.0%
between 101 -1,000 pounds	50	35.7%
between 1,001 - 10,000 pounds	10	49.1%
between 10,001 - 100,000 pounds	0	0.0%
between 100,001 - 1 million pounds	0	0.0%
> 1 million pounds	0	0.0%

*EPA Region Trends– Mercury and Mercury Compounds.* Exhibit 4.143 shows the quantity (pounds) of mercury and mercury compounds reported by facilities in each EPA Region in 1999 to 2003. In 2003, facilities in 4 Regions (Regions 3, 4, 5, and 6) reported about 80 percent of mercury and mercury compounds. Facilities in Region 6 reported almost 10,000 pounds, about 25 percent, of the total quantity in 2003. This represents a decrease of almost 53 percent compared to the quantity reported by Region 6 facilities in 2000. Compared to the quantities reported in 2000 (the year in which the TRI reporting threshold was lowered), facilities in 5 other Regions also reported a decreased quantity of mercury and mercury compounds: Region 10 (-94.50%), Region 4 (-56.3%), Region 1 (-55.3%), Region 2 (-52.4%), and Region 5 (-49.6%). Increased quantities of mercury and mercury compounds were reported by facilities in 4 Regions: Region 3 (+148.8%), Region 9 (+90.4%), Region 8(+84.8%), and Region 7 (+16.5%). Exhibit 4.144 shows the distribution of mercury and mercury compounds reported across EPA regions and their respective facilities in 2003.

Exhibit 4. 143. Quantity of Mercury and Mercury Compounds by EPA Regions (1999-2003)

<b>EPA Region</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>Change in Quantity (2000-2003)</b>	<b>Percent Change in Quantity (2000-2003)</b>	<b>Percent Of the Total Priority Chemical quantity (2003)</b>
6	2,794	21,079	12,959	24,280	9,960	-11,119	-52.7%	24.6%
5	8,514	16,033	4,995	4,542	8,077	-7,956	-49.6%	19.9%
3	1,439	2,985	21,276	6,055	7,427	4,443	148.8%	18.3%
4	3,262	15,595	35,557	48,940	6,820	-8,776	-56.3%	16.8%
9	0	1,171	51,382	6,925	2,229	1,058	90.4%	5.5%
1	1,612	4,200	647	611	1,877	-2,324	-55.3%	4.6%
10	35,201	25,193	1,515	1,351	1,397	-23,796	-94.5%	3.4%
7	10	903	719	1,614	1,052	149	16.5%	2.6%
2	47	2,185	1,440	2,247	1,039	-1,146	-52.4%	2.6%
8	0	359	286	559	662	304	84.8%	1.6%

Exhibit 4. 144. Distribution of Facilities Reporting Mercury and Mercury Compounds in 2003 & Quantity of Mercury and Mercury Compounds Reported in 2003 per Region

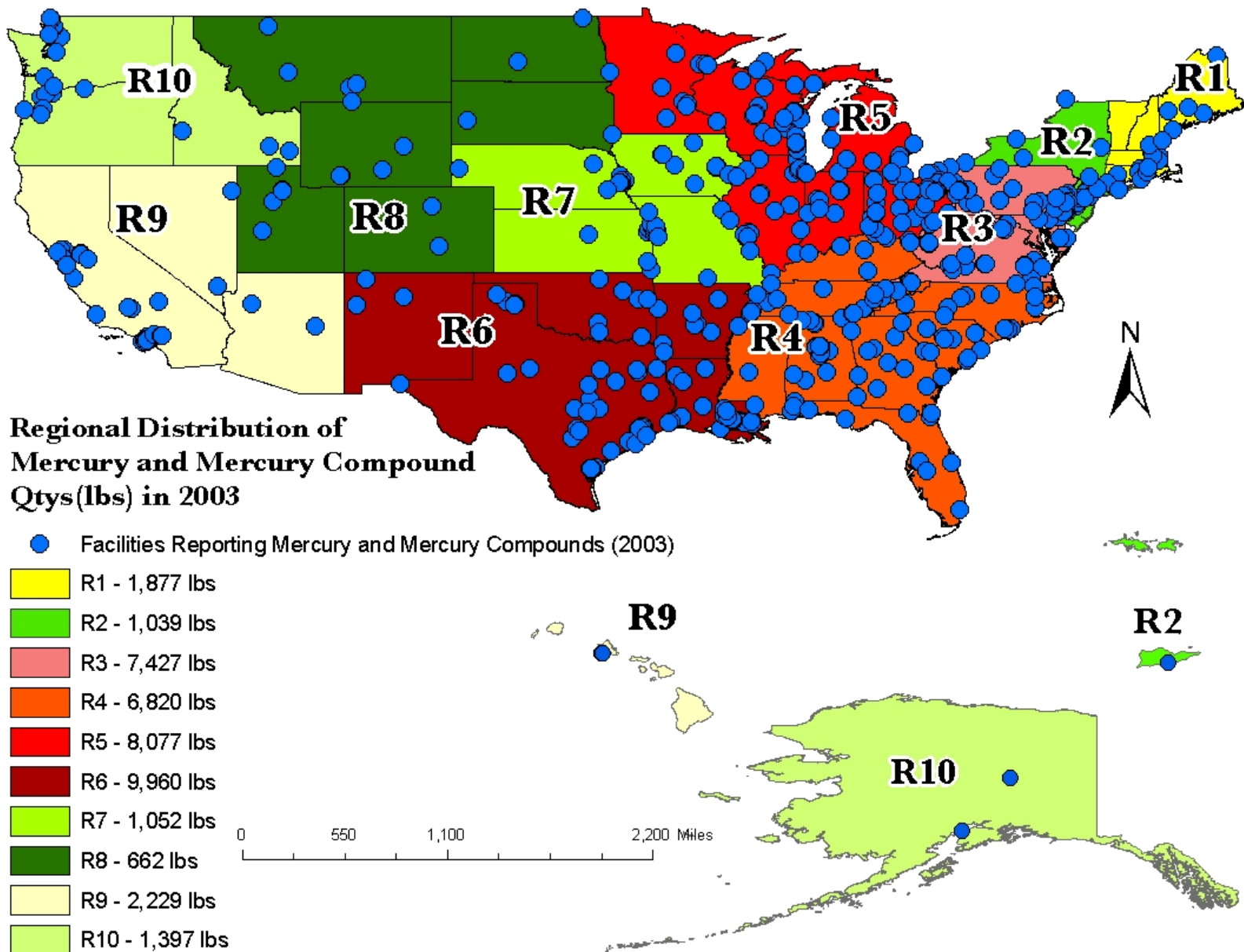


Exhibit 4.145 shows how mercury and mercury compounds were managed by facilities in each EPA Region in 2003. Virtually all of the PC quantity of mercury and mercury compounds was land disposed -- offsite disposal (72 %) and onsite disposal (28%). Facilities in many of the Regions reported significant recycling of mercury and mercury compounds.

Exhibit 4. 145. Management Methods for Mercury and Mercury Compounds, By EPA Region (2003)

EPA Region	Disposal		Energy Recovery		Treatment		Recycling	
	Onsite Disposal	Offsite Disposal	Onsite Energy Recovery	Offsite Energy Recovery	Onsite Treatment	Offsite Treatment	Onsite Recycling	Offsite Recycling
1	31	1,841	0	0	0	4	0	1,863
2	12	1,027	0	0	0	0	132	49
3	262	7,157	0	0	0	9	316,956	38,395
4	4,155	2,664	0	0	0	0	42,190	8,491
5	477	7,547	0	0	0	52	5,561	9,771
6	4,523	5,437	0	0	0	0	58,020	8,791
7	137	915	0	0	0	0	0	361
8	442	221	0	0	0	0	0	44
9	512	1,717	0	0	0	0	57	120
10	824	573	0	0	0	0	0	1,040

*State Trends—Mercury and Mercury Compounds.* Facilities in every state and territory (except Puerto Rico and Vermont) reported a PC quantity of mercury and mercury Compounds in 2003. Exhibit 4.146 shows the quantity of mercury and mercury compounds, in 1999-2003, in those 12 states where facilities comprised over 80 percent of the total quantity in 2003. Facilities in Texas reported the largest quantity of mercury and mercury compounds in 2003, accounting for almost 15 percent of the total quantity.

Facilities in many of the states reported an increased quantity of mercury and mercury compounds. Facilities in Pennsylvania reported about 47 percent of the overall increase (6,279 pounds) in quantity (Exhibit 4.147). Significant increases also were reported by facilities in Florida, Alabama, Louisiana, and Connecticut.

In addition to the decreased quantity reported by facilities in Texas, facilities in Ohio and Tennessee also reported decreased quantities of mercury and mercury compounds, compared to the quantities reported in 2000. (Exhibit 4.147).

Exhibit 4. 146. State-Level Information for Mercury and Mercury Compounds (1999-2003)

State	1999	2000	2001	2002	2003	Change in quantity (2000-2003)	Percent Change in Quantity (2000-2003)	Percent of Total Quantity of Mercury and Mercury Compounds (2003)
Texas	2,303	6,725	8,013	4,884	5,986	-740	-11.0%	14.8%
Ohio	242	9,049	2,163	1,968	5,445	-3,604	-39.8%	13.4%
Louisiana	486	2,138	4,738	19,050	3,756	1,618	75.7%	9.3%
Pennsylvania	293	580	3,043	3,108	3,555	2,975	512.8%	8.8%
Alabama	415	913	8,271	15,863	2,618	1,706	186.9%	6.5%

Delaware	1,081	1,327	1,047	1,277	2,150	823	62.0%	5.3%
<b>State</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>Change in quantity (2000-2003)</b>	<b>Percent Change in Quantity (2000-2003)</b>	<b>Percent of Total Quantity of Mercury and Mercury Compounds (2003)</b>
Florida	0	214	1,284	1,188	2,011	1,797	840.8%	5.0%
Connecticut	0	259	408	332	1,766	1,507	582.8%	4.4%
California	0	1,086	51,282	6,639	1,713	627	57.8%	4.2%
West Virginia	62	320	16,773	1,009	1,249	929	290.7%	3.1%
Wisconsin	41	630	748	1,189	1,107	478	75.8%	2.7%
Tennessee	1,793	2,846	1,924	1,960	1,008	-1,838	-64.6%	2.5%

Exhibit 4. 147. Trends Analysis on States with Largest Quantity Increase and Decrease (1999 – 2003): Facilities in Pennsylvania and Ohio

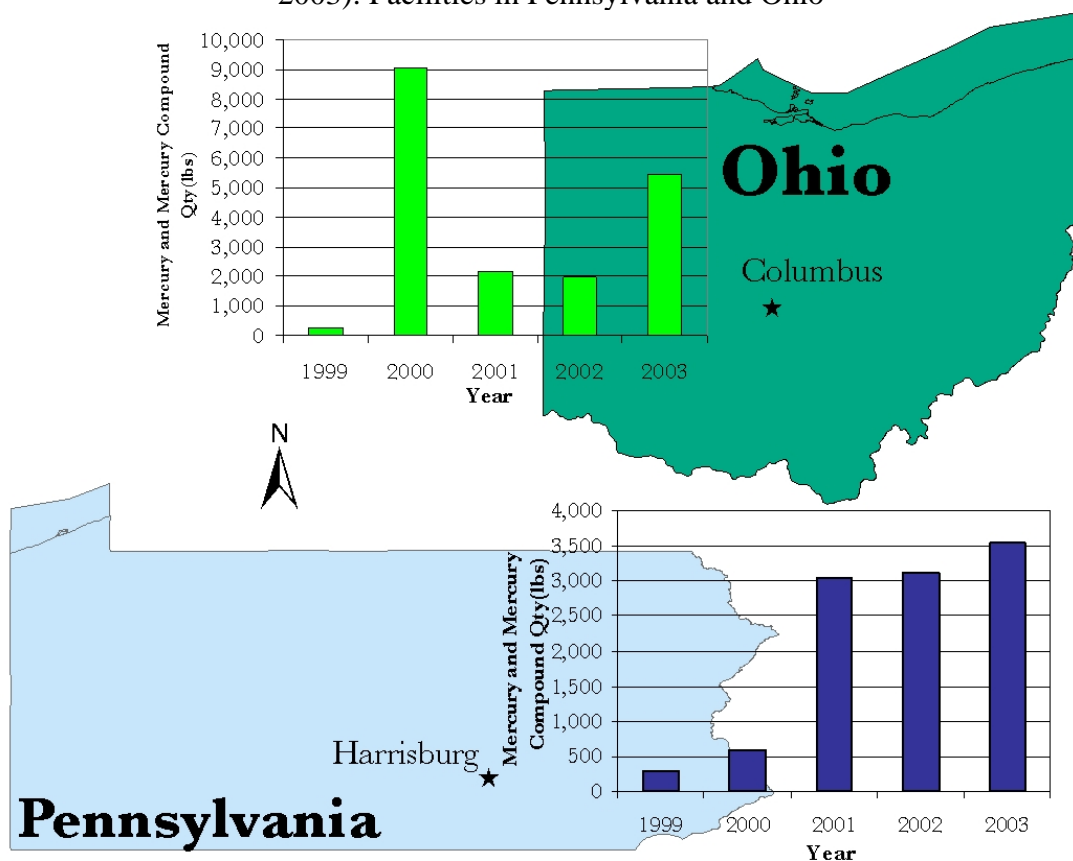


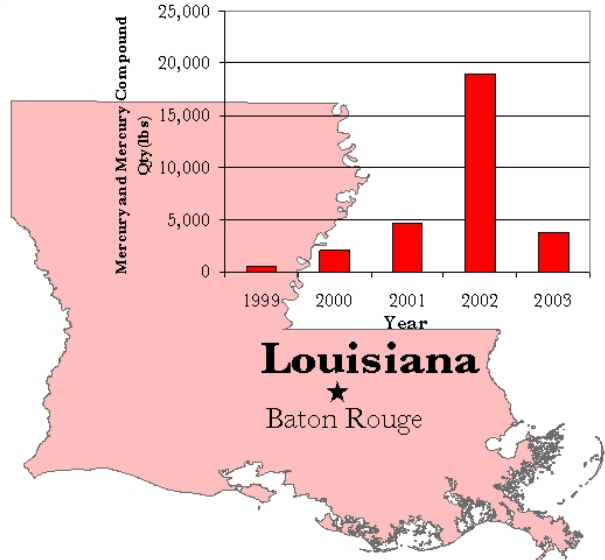
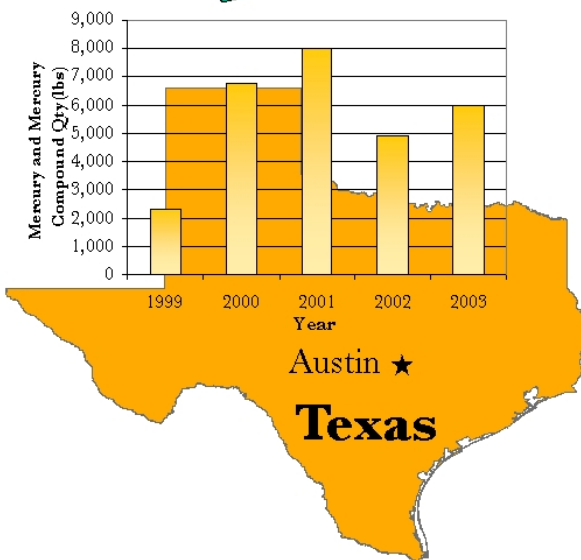
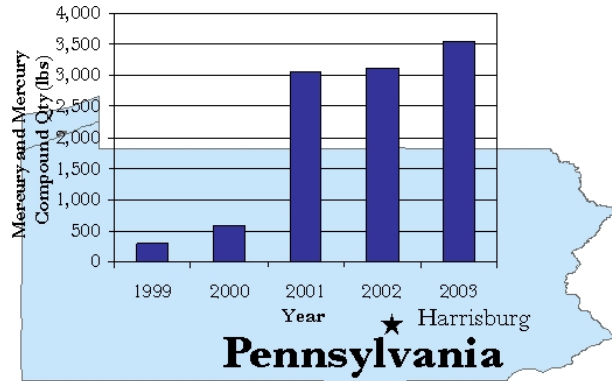
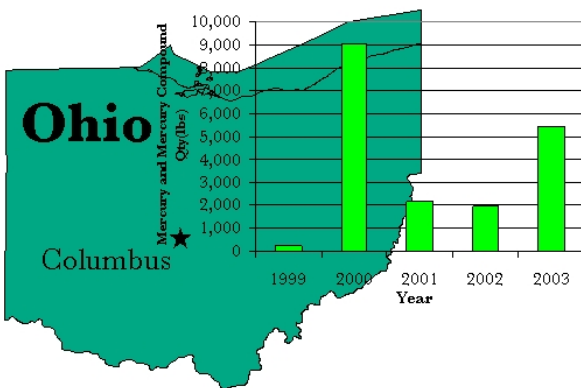
Exhibit 4.148 shows how mercury and mercury compounds were managed by facilities in these 12 states. Virtually 100 percent of the mercury and mercury compounds from facilities in these states was land disposed, mostly (74%) offsite. For numerous facilities in these states, the recycling quantities were considerably greater than the PC quantities that were land disposed.

Exhibit 4. 148. Management of Mercury and Mercury Compounds in States (2003)

State	Total Priority Chemical Quantity (2003)	Onsite Disposal	Offsite Disposal	Onsite Energy Recovery	Offsite Energy Recovery	Onsite Treatment	Offsite Treatment	Onsite Recycling	Offsite Recycling
Texas	5,986	2,340	3,646	0	0	0	0	0	1,418
Ohio	5,445	190	5,255	0	0	0	0	462	6,785
Louisiana	3,756	2,111	1,645	0	0	0	0	58,017	380
Pennsylvania	3,555	75	3,472	0	0	0	9	209,264	38,372
Alabama	2,618	547	2,072	0	0	0	0	15,417	136
Delaware	2,150	34	2,116	0	0	0	0	2,182	1
Florida	2,011	1,984	26	0	0	0	0	0	1,823
Connecticut	1,766	0	1,762	0	0	0	4	0	1,041
California	1,713	19	1,694	0	0	0	0	56	120
West Virginia	1,249	60	1,189	0	0	0	0	105,510	0
Wisconsin	1,107	75	1,032	0	0	0	0	5,083	11
Tennessee	1,008	887	121	0	0	0	0	25,952	170

Exhibit 4. 149. Trends Analysis of States Reporting 4 Largest Quantities of Mercury and Mercury Compounds (2003)





*Industry Sector (SIC) Trends—Mercury and Mercury Compounds.* Facilities in over 90 SIC codes reported a PC quantity of mercury and mercury compounds in 2003. Exhibit 4.150 shows the PC quantity (pounds) of mercury and mercury compounds reported in the 18 industry sectors (SIC codes) where facilities accounted for almost 90 percent of the mercury and mercury compounds in 2003. Facilities in 3 of these industry sectors accounted for almost 60 percent of the total quantity: SIC 2819 (Industrial inorganic chemicals, nec), SIC 3312 (Blast furnaces and steel mills), and SIC 2812 (Alkalies and chlorine). Almost all of these industry sectors had a significant increase in 2000 – perhaps due to the lowered TRI reporting threshold that became effective for mercury and mercury compounds beginning in 2000. Since then, the total PC quantity of mercury and mercury compounds decreased in 6 of the industry sectors, including:

- SIC 3312 (Blast furnaces and steel mills) – a decrease of 65.1%
- SIC 2869 (Industrial organic chemicals, nec) – a decrease of 94.8%
- SIC 2911 (Petroleum refining) – a decrease of 63.8%
- SIC 3692 (Primary batteries, wet and dry) – a decrease of 82.3%.

Among those industry sectors for which the total quantity of Mercury and Mercury Compounds increased since 2000 were:

- SIC 2819 (Industrial organic chemicals, nec) -- an increase of 107.6%
- SIC 3823 (Process control instruments) – an increase of 1833%



Exhibit 4. 150. Industry Sector-Level Information for Mercury and Mercury Compounds (1999-2003)

Primary SIC Code	SIC Description	Number of Facilities for this SIC Code (2003)	1999	2000	2001	2002	2003	Change in Quantity (2000-2003)	Percent Change (2000-2003)	Percent of Total Quantity of this Priority Chemical (2003)
2819	Industrial inorganic chemicals, nec	27	293	4,763	8,137	8,946	9,887	5,124	107.6%	24.4%
3312	Blast furnaces and steel mills	44	2,802	22,698	4,094	3,182	7,918	-14,780	-65.1%	19.5%
2812	Alkalies and chlorine	10	7,688	5,834	25,273	6,161	6,361	527	9.0%	15.7%
2911	Petroleum refining	83	5	6,606	4,800	2,216	2,391	-4,215	-63.8%	5.9%
3823	Process control instruments	1	0	60	0	45	1,160	1,100	1833.3%	2.9%
3479	Metal coating and allied services	1	0	0	6,680	11,560	1,083	1,083	NA	2.7%
3274	Lime	28	3	946	652	535	926	-20	-2.1%	2.3%
9999	Nonclassifiable establishment	1	0	138	663	140	900	762	552.3%	2.2%
2046	Wet corn milling	12	0	364	241	231	711	347	95.5%	1.8%
3692	Primary batteries, dry and wet	4	5	3,792	467	567	671	-3,121	-82.3%	1.7%
9711	National security	9	0	55	47,568	5,394	656	601	1095.7%	1.6%
2874	Phosphatic fertilizers	4	0	588	1,012	1,277	646	59	10.0%	1.6%
8733	Noncommercial research organizations	2	0	10	0	1	601	592	6027.0%	1.5%
Primary SIC Code	SIC Description	Number of Facilities for this SIC Code (2003)	1999	2000	2001	2002	2003	Change in Quantity (2000-2003)	Percent Change (2000-2003)	Percent of Total Quantity of this Priority Chemical (2003)
2899	Chemical preparations, nec	4	0	88	52	304	588	500	565.6%	1.5%
1422	Crushed and broken limestone	10	0	0	0	418	566	566	NA	1.4%
2621	Paper mills	44	0	1,217	656	720	560	-657	-54.0%	1.4%
2869	Industrial organic chemicals, nec	19	563	9,753	22,625	28,093	504	-9,249	-94.8%	1.2%
3641	Electric lamps	14	0	1,387	1,092	930	489	475	-64.8%	1.2%

Exhibit 4.151 shows how mercury and mercury compounds were managed by facilities in these 18 industry sectors in 2003. Virtually 100 percent of the mercury and mercury compounds were land disposed, with 73 percent sent offsite disposal and 27 percent disposed onsite. Facilities in SIC 2819 (Industrial organic chemicals, nec) and SIC 2812 (alkalies and chlorine), among others, reported considerable recycling of mercury and mercury compounds.

Exhibit 4. 151. Management of Mercury and Mercury Compounds in Industry Sectors (2003)

Primary SIC Code	SIC Description	Total Priority Chemical Quantity	Onsite Disposal	Offsite Disposal	Onsite Energy Recovery	Offsite Energy Recovery	Onsite Treatment	Offsite Treatment	Onsite Recycling	Offsite Recycling
2819	Industrial inorganic chemicals, nec	9,887	6,448	3,386	0	0	0	52	209,264	40,896
3312	Blast furnaces and steel mills	7,918	86	7,833	0	0	0	0	43	1,246
2812	Alkalies and chlorine	6,361	562	5,799	0	0	0	0	212,143	9,377
2911	Petroleum refining	2,391	336	2,055	0	0	0	0	13	745
3823	Process control instruments	1,160	0	1,160	0	0	0	0	0	154
3479	Metal coating and allied services	1,083	0	1,083	0	0	0	0	0	0
3274	Lime	926	723	203	0	0	0	0	0	0
9999	Nonclassifiable establishment	900	0	900	0	0	0	0	0	5
2046	Wet corn milling	711	0	711	0	0	0	0	0	67
3692	Primary batteries, dry and wet	671	0	671	0	0	0	0	0	64
9711	National security	656	9	647	0	0	0	0	797	6,947
2874	Phosphatic fertilizers	646	646	0	0	0	0	0	0	7
8733	Noncommercial research organizations	601	0	601	0	0	0	0	0	0
2899	Chemical preparations, nec	588	1	587	0	0	0	0	0	6
1422	Crushed and broken limestone	566	566	0	0	0	0	0	0	0
2621	Paper mills	560	235	324	0	0	0	0	0	75
2869	Industrial organic chemicals, nec	504	98	406	0	0	0	0	0	307
3641	Electric lamps	489	0	489	0	0	0	0	460	4,580

*Recycling.* Exhibit 4.152 provides some indication of the extent to which facilities in certain industry sectors recycled at least 100 pounds of mercury and mercury compounds in 1999-2003, rather than manage it as a waste. For those year(s), the facility did not report a PC quantity, i.e., a quantity managed via land disposal, energy recovery, or treatment.

Exhibit 4. 152. Facilities reporting Recycling but not a Priority Chemical quantity (1999-2003)

			1999		2000		2001		2002		2003	
Number of Facilities	EPA Region	State	Onsite Recycle	Offsite Recycle	Onsite Recycle	Offsite Recycle	Onsite Recycle	Offsite Recycle	Onsite Recycle	Offsite Recycle	Onsite Recycle	Offsite Recycle
SIC 1442 --Construction and gravel												
1	9	California	0	0	0	0	185	0	0	584	0	0
SIC 2821 -- Paper mills												
1	3	Pennsylvania	0	0	0	0	0	137	0	38	0	0
SIC 2531 -- Paperboard mills												
1	10	Oregon	0	0	0	0	0	64	0	110	0	0
SIC 2812 -- Alkalies and chlorine												
1	6	Louisiana	8,200	0	0	0	0	0	0	0	0	0
SIC 2819 --Industrial inorganic chemicals, nec												
1	3	Pennsylvania	105,000	0	112,000	0	0	0	0	0	0	0
SIC 2821 -- Plastics materials and resins												

1	3	Pennsylvania	0	0	0	0	0	140	0	0	0	0
<b>SIC 2891 -- Adhesives and sealants</b>												
1	5	Illinois	0	0	0	108	0	0	0	0	0	0
<b>SIC 2892 -- Explosives</b>												
1	6	Texas	0	0	0	0	0	504	0	116	0	23
<b>SIC 2899 -- Chemical preparations</b>												
1	5	Ohio	0	0	0	390	0	390	0	0	0	0
<b>SIC 2911 -- Petroleum Refining</b>												
1	2	New Jersey	0	0	0	5	0	1,751	0	0	0	0
1	6	Texas	0	0	0	0	0	0	0	179	0	0
<b>SIC 3275 -- Gypsum products</b>												
1	4	Alabama	0	0	0	0	0	0	0	0	155	0
<b>SIC 3299 -- Nonmetallic mineral products,nec</b>												
1	5	Ohio			0	150					30	0
<b>SIC 3312 --Blast Furnaces and steel mills</b>												
1	2	New Jersey	0	0	0	100	0	0	0	0	0	110
2	3	Pennsylvania	0	0	0	270	0	0	0	126	0	0
1	5	Indiana	0	0	0	0	0	0	0	1,200	0	777
1	5	Minnesota	0	0	0	144	0	46	0	57	0	50
2	6	Texas	0	0	0	2,911	0	3,075	0	2,928	0	57
<b>SIC 3321 -- Gray and ductile iron foundries</b>												
1	2	New York	0	0	0	0	0	110	0	92	0	0
<b>SIC 3341 -- Secondary nonferrous metals</b>												
1	1	Louisiana	0	0	0	0	0	156	0	12	0	0
<b>SIC 3443 -- Fabricated plate work (boiler shops)</b>												
1	3	Virginia	0	0	0	206	0	0	0	0	0	0
<b>SIC 3499--Fabricated metal products, nec</b>												
1	7	Iowa	0	596	0	0	0	0	0	0	0	0
<b>SIC 3561-- Pumps and pumping equipment</b>												
1	3	Maryland	0	0	0	0	0	100	0	145	0	148
<b>SIC 3564-- Blowers and fans</b>												
			<b>1999</b>		<b>2000</b>		<b>2001</b>		<b>2002</b>		<b>2003</b>	
<b>Number of Facilities</b>	<b>EPA Region</b>	<b>State</b>	<b>Onsite Recycle</b>	<b>Offsite Recycle</b>	<b>Onsite Recycle</b>	<b>Offsite Recycle</b>	<b>Onsite Recycle</b>	<b>Offsite Recycle</b>	<b>Onsite Recycle</b>	<b>Offsite Recycle</b>	<b>Onsite Recycle</b>	<b>Offsite Recycle</b>
1	5	Indiana	0	0	0	0	0	160	0	0	0	0
<b>SIC 3613-- Switchgear and switchboard apparatus</b>												
1	2	New Jersey	0	0	0	0	0	0	0	3,173	0	2,350
<b>SIC 3629-- Electrical industrial apparatus, nec</b>												
1	2	Puerto Rico	0	0	0	0	0	1,392	0	0	0	1,403
<b>SIC 3639-- Household appliances, nec</b>												
1	4	Tennessee	0	0	0	0	0	0	0	243	0	65
<b>SIC 3641-- Electric Lamps</b>												
1	4	Kentucky	0	5,254	0	3,137	0	0	0	0	0	0
1	5	Illinois	0	0	0	16	0	218	0	194	0	26
<b>SIC 3674-- Semiconductors and related devices</b>												
1	6	Texas	0	0	0	0	0	326	0	0	0	20
<b>SIC 3676-- Electronic Components, nec</b>												
1	5	Indiana	0	5,391	0	1,579	0	1,592	0	0	0	0
<b>SIC 3691-- Storage Batteries</b>												
1	3	Pennsylvania	0	0	0	110	0	12	0	0	0	0
<b>SIC 3692-- Primary batteries, dry and wet</b>												
1	1	Vermont	0	0	0	0	0	3,500	0	5,900	0	8,858
<b>SIC 3721-- Aircraft</b>												
1	7	Missouri	0	0	0	16	0	0	0	190	0	0
<b>SIC 3724-- Aircraft engines and engine parts</b>												

1	5	Indiana	0	0	0	46	0	95	0	176	0	320
<b>SIC 3812-- Search and navigation equipment</b>												
1	9	California	0	0	0	0	0	160	0	197	0	401
<b>SIC 3823-- Process control instruments</b>												
1	3	Pennsylvania	0	0	0	538	0	0	0	581	0	0
<b>SIC 3829-- Measuring and controlling devices, nec</b>												
1	1	Massachusetts	0	0	0	215	0	0	0	150	0	174
1	5	Minnesota	0	0	0	243	0	0	0	0	0	0
<b>SIC 3843-- Dental equipment and supplies</b>												
1	3	Delaware	0	0	0	3,320	0	3,327	0	28,100	0	6,089
1	5	Michigan	0	0	0	6,300	0	6,600	0	2,500	0	2,500
<b>SIC 3845-- Electromedical equipment</b>												
1	4	Florida	0	0	0	0	0	0	0	267	0	0
<b>SIC 9199-- General government</b>												
1	10	Oregon	0	0	0	275	0	0	0	0	0	0
<b>SIC 9999-- Nonclassifiable Establishment</b>												
1	4	North Carolina	0	0	0	0	0	0	0	158	0	0